IN THE SPECIFICATION

The specification filed herewith has replaced the previous paragraph entitled "Cross-Reference to Related Applications" with the following paragraph on page 2, lines 2-18 of the Application as filed herewith:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part of co-pending U.S. patent application No. 10/109,172, entitled *Vertebral Stabilization Assembly and Method*, filed March 28, 2002, which claims the benefit of U.S. Provisional Patent Application No. 60/327,118, entitled *Vertebral Stabilization Assembly and Method*, filed October 3, 2001, and U.S. Provisional Patent Application No. 60/350,259, entitled *Vertebral Stabilization Assembly and Method Having a Modified Pedicle Screw*, filed November 2, 2001, and U.S. Provisional Patent Application No. 60/331,857 entitled *Vertebral Stabilization Assembly and Method for Anterior Placement*, filed November 20, 2001, and U.S. Provisional Patent Application No. 60/353,691, entitled *Vertebral Stabilization Assembly and Method Having Dual Pedicle Screws*, filed January 31, 2002, all naming Paul A. Vaughan as inventor, the entire contents of all above-referenced applications are hereby incorporated by reference for all purposes.

The specification filed herewith has added the following to the Brief Description of the Drawings on page 29, lines 13-19:

FIGURE 28 is a top plan view of the pedicle screw for anterior placement according to yet another aspect of the present invention; and

FIGURE 29 is a perspective view of a vertebral stabilization assembly illustrated partially in phantom and shown stabilizing an upper and lower vertebra according to one aspect of the present invention.

The specification filed herewith has added the following paragraphs beginning on page 84, line 15 through page 91, line 6:

FIGURE 28 illustrates another aspect of the vertebral stabilization assembly 10 of the present invention. As referenced above, vertebral screws (e.g., the pedicle screw 12 of FIGURE 21) can vary in length. With this in mind, FIGURE 28 is similar to the aspect of the invention described with reference to FIGURE 21 except that the pedicle screw 12 is illustrated with a shorter length; additionally, the second end 64 of the first connecting screw 40 is within a recessed portion 119 of the anterior side 124 of the vertebra 118 (seen better in FIGURE 29 and discussed below). Because of the shorter length of the pedicle screw 12, the pedicle screw 12 can enter the anterior portion 124 of the vertebra 118 and traverse the vertebral body, but not enter the pedicle 120. In other configurations, the pedicle screw 12 can extend partially into the pedicle 120; and, in yet further configurations,

the pedicle screw 12 can extend substantially into the pedicle 120 or near the pedicle 120. Thus, with the general label and use of the term "pedicle screw," it should be understood that a "pedicle screw" (e.g., pedicle screw 12) does not necessarily have to enter the pedicle 120. And, as such, the use of the term "pedicle screw," herein and by itself, should not require placement of the "pedicle screw" in the pedicle 120 unless the pedicle screw (e.g., pedicle screw 12) is specifically mentioned as being positioned within the pedicle 120. The pedicle screw 12 may also be referred to as a vertebral screw, a vertebral body screw, or an anterior vertebral screw.

FIGURE 28 also shows that a head 60 of the pedicle screw 12 can be inset within the vertebra 118 - that is, placed entirely or partially into the vertebra 118. This also can be seen more clearly in connection with FIGURE 29 where the head 60 may be inset or recessed into the recessed portion 119.

With the general description of FIGURE 28, it is intended that the placement of the pedicle screw 12 in the anterior of the vertebra 118 can avail itself of not only the techniques and devices described herein with reference to the remaining FIGURES, but also the techniques and devices that will become apparent to one of ordinary skill in the art after review of the specification herein - such techniques and devices including not only those that are now known, but also those that are later developed. For example, the configuration of FIGURE 28 can utilize the guide member 150 shown in FIGURE 22.

It is further intended that any of the configurations, described herein with reference to the remaining FIGURES, can generally avail themselves of the aspect of the invention, described with reference to FIGURE 28. For example, the dual pedicle screws 400a and 400b of FIGURE 26 can have shorter lengths for placement in the vertebra 118, traversing through the vertebral body, but not through the pedicle 120. Additionally, the dual pedicle screw 400a and 400b of FIG. 26 can be inset into the vertebra 118.

FIGURE 29 is a perspective view of the aspect of the invention described with reference to FIGURE 28. FIGURE 29, in general, shows a vertebra 118 and a second vertebra 34 with a vertebral stabilization assembly 10. FIGURE 29 is similar to the configuration of FIGURE 1 except that the pedicle screws 12 and 14 are shorter in length and inserted from an anterior side 124 of the vertebra 118. A second end 64 of the first connecting screw 40 and a second end 65 of the second connecting screw 42 are illustrated within recessed portions 119 of the anterior sides 124 of the vertebra 118 and the second vertebra 34. In other implementations, the second end 64 and the second end 65 may be countersunk or inset into the anterior sides 124 of the vertebra 118 and the second vertebra 34.

The vertebral stabilization assembly 10 in this configuration includes a first pedicle screw 12 and a second pedicle screw 14. The first pedicle screw 12 includes a shaft 16 provided with a threaded portion 18. The threaded portion 18 of the shaft 16 is operable for threading engagement of the first pedicle screw 12 with the

vertebra 118. The shaft 16 of the pedicle screw 12 further includes an engaging portion 22.

The second pedicle screw 14 can be substantially similar to the first pedicle screw 12 in that the second pedicle screw 14 can include a shaft 30 substantially similar to the shaft 16 of the first pedicle screw 12. Additionally, the shafts 16 and 30 of the first and second pedicle screws 12 and 14, respectively, can be substantially cylindrical members. Similarly, the shaft 30 of the second pedicle screw 14 can be provided with a threaded portion 32 similar to the threaded portion 18 provided on the shaft 16 of the first pedicle screw 12. The threaded portion 32 of the shaft 30 is operable for threading engagement of the second pedicle screw 14 with a second vertebra 34. The shaft 30 of the second pedicle screw 14 is provided with an engaging portion 36.

The shafts 16 and 30 of the first and second pedicle screws 12 and 14 can generally be a length that is sufficient to anchor the first pedicle screw 12 into the vertebra 118 and the second pedicle screw 14 into the vertebra 34. The lengths of the first pedicle screw 12 and the second pedicle screw 14 as shown in FIGURE 28 are relatively shorter when compared to the lengths of the first pedicle screw 12 and the second pedicle screw 14 in FIGURE 1. The threaded portions 18 and 32 of the first and second pedicle screws 12 and 14 may be threads similar to those on ordinary screws and extending a distance from the shafts 16 and 30 sufficient to promote optimum anchoring of the first and second pedicle screws 12 and 14 within the

vertebra 118 and second vertebra 34. The first and second pedicle screws 12 and 14 can be constructed of a rigid material such as, but not limited to, steel, metal, or metal alloys, polymeric material, or a variety of other substantially rigid materials adapted to promote rigid engagement of the first and second pedicle screws 12 and 14 to the vertebra 118 and second vertebra 34.

The first pedicle screw 12 (shown in ghosted view) extends through an anterior portion 124 of the vertebra 118 and traverses at least a portion of the vertebral body of the vertebra 118; however, the first pedicle screw 12 does not extend into the pedicle 120 (better seen in FIGURE 28). A head 60 of the first pedicle screw 12 may be inset within the vertebra 118. Likewise, the second pedicle screw 14 (shown in ghosted view) extends through an anterior portion 124 of the second vertebra 34 and traverses at least a portion of the vertebral body of the second vertebra 34; however, the second pedicle screw 14 does not extend into the pedicle 120 (better seen in FIGURE 28). A head 67 of the second pedicle screw 14 may be inset within the second vertebra 34. While this configuration of the vertebral stabilization assembly 10 has been described with reference to FIGURE 28, it should be understood that other configurations can additionally be utilized, including vertebral stabilization assemblies 10 with vertebral screws (e.g., pedicle screw 12 and second pedicle screw 14), having different shapes, configurations, and sizes. For example, in other configurations, the vertebral screw can be inserted into the anterior portion 124 of the vertebra

118 and the second vertebra 34, traversing the vertebral body, and extending partially or substantially into the pedicle 120. Additionally, as referenced above, the anterior insertion of the first pedicle screw 12 and second pedicle screw 14 into anterior portions 124 of the vertebra 118 and/or the second vertebra 34 can allow use of a vertebral screw with a larger diameter.

The vertebral stabilization assembly 10 is further provided with a first connecting screw 40 and a second connecting screw 42. The first and second connecting screws 40 and 42 can be substantially cylindrical members and may be constructed from materials similar to that of the first and second pedicle screws 12 and 14, such as, but not limited to, titanium, steel, metal or other metal alloys, substantially rigid polymeric material or a variety of other rigid metallic materials adapted and suitable for these purposes. The first connecting screw 40 has a first end 44 and a second end 64. The second connecting screw 42 has a first end 46 and a second end 65. The first end 44 of the first connecting screw 40 is adapted to be received by the engaging portion 22 on the shaft 16 of the first pedicle screw 12. The first end 46 of the second connecting screw 42 is adapted to be received by the engaging portion 36 of the shaft 30 of the second pedicle screw 14.

The vertebral stabilization assembly 10 further includes a connecting member 50 that has a first end 52 and a second end 54. The first end 52 of the connecting member 50 is connected to or coupled near or adjacent the second

end 64 of the connecting screw 40 that is positionable in the vertebra 118. The second end 54 of the connecting member 50 is connected to or coupled near or adjacent the second end 65 of the second connecting screw 42 positionable in the second vertebra 34. The connecting member 50 may be constructed from a variety of materials similar to that of the first and second pedicle screws 12 and 14 such as, but not limited to, titanium, steel, metal, or other metal alloys, rigid polymeric material, or other rigid materials suitable for stabilization of the vertebra 118 and the second vertebra 34 by connection to the first and second connecting screws 40 and 42.

The vertebra 118 and the second vertebra 34 of FIGURE 29 have a natural concavely arced surface (that is, inwardly curved surface) or recessed portion 119 between edges 510 of the vertebra 118, and the second vertebra 34. The second end 64 of the connecting screw 40 and the second end 65 of the connecting screw 42 are positioned in the recessed portions 119 of the anterior sides 124 of the vertebra 118 and the second vertebra 34; and, as such, the first end 52 and second end 54 of the connecting member 50 are additionally positioned in the recessed portions 119 of the anterior sides 124 of the vertebra 118 and the second vertebra 34. To facilitate the connection of the first and second ends 52, 54 of the connecting member 50 (e.g., using a rod), edges 510 on the vertebra 118 and the second vertebra 34 can have a groove, channel or cutout portion 500. The cutout portion 500 can be made utilizing any techniques or equipment generally available for cutting the

vertebra 118 and the second vertebra 34, including but not limited to, drills, saws, chisels, and the like. In addition to the cutout portion 500, it is additionally contemplated that if the member connecting the first and second ends 52, 54 of the connecting member 50 would contact a disc portion, a portion of that disc could be cut out. Furthermore, while not shown, the recessed portion 119 can have a portion thereof cutout to allow all or at least a portion of the connecting member 50 to be inset within the vertebra 118 and the second vertebra 34. The placement of the second end 64, second end 65, first end 52, and second end 54 in recessed portions 119 of the vertebra 118 and second vertebra 34 minimizes or eliminates an excessive protrusion of the connecting member 50 away from the vertebra 118 and the second vertebra 34. As such, the limited protruding prevents interruption with other bodily systems - e.g., blood vessels and the like.

With reference to FIGURE 29, it is intended that any of the configurations, described with reference to other FIGURES, can generally avail themselves of the aspect of the invention, described with reference to FIGURE 29. For example, the first and second vertebras 20 and 34 of FIGURE 1 can have a cutout portion 500 for placement of the connecting member 50, therein.

It should be understood that the vertebra 118 and the second vertebra 34 may be any vertebra or structure of the spine, such as, for example, lumbar, thoracic and cervical vertebrae.